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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/028,160

12/20/2001

Ernest L. Thurber

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EXAMINER

BERMAN, SUSAN W

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 03/21/2003

KB 4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,160

Applicant(s)

THURBER ET AL.

Examiner

Susan W Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what total weight the recited parts by weight are based upon. Therefore, the parts by weight of components in the fusible powder is not clearly defined. For example, in claim 1, does applicant intend to set forth that the parts by weight fusible organic component is 0 to 35 parts by weight based on 100 parts by weight metal salt of a fatty acid or based on the total weight of the fusible powder?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 486 308. See page 4, line 32, to page 6, line 4. EP teaches that the ratio of epoxy resin to grinding aid preferably ranges from about 10 to about 85 parts by weight epoxy resin to about 15 to about 85 parts by weight grinding aid. Thus EP '308 clearly anticipates the instant claims wherein the parts by weight grinding aid is from about 15 to 85 and the parts by weight epoxy resin is from about 10 to about 85. Since EP '308 teaches that the

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parts by weight set forth are preferable, the parts by weight disclosed are not considered to be limited by the preferred embodiment. Therefore, EP '308 is considered to anticipate the instantly claimed parts by weight as instantly claimed. It is noted that the parts by weight set forth in the instant claims are not clearly defined, as discussed above.

Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ho et al (5,702,811, filed 10-20-1995). Ho et al teach bonding abrasive particles with a binder selected from the group consisting of a metal salt of a fatty acid and colloidal silica and combinations thereof. See column 9, line 49, to column 11, line 11, column 17, line 49, to column 18, line 26 (Table 1), and Examples 7-8. Thus Ho et al clearly anticipate the instant claim wherein the fusible powder comprises 100 parts by weight metal salt of a fatty acid and 0 parts by weight of a fusible organic component. Claim 2, according to claim 1, includes the embodiment wherein the amount of fusible organic component is zero. However, Ho et al also teach adding the blend of abrasive and nonabrasive grains to a make coat precursor containing curable organic materials (column 13, lines 15-50, and column 6, line 59, to column 8, line 34). With respect to claim 3, Ho et al teach that mixtures of stearate salts can be used as in commercially available sources of "stearic acid". With respect to claims 4-6, the recitation "up to 30 parts by weight" of a fatty acid includes zero parts by weight fatty acid. With respect to claims 7-8, Ho et al disclose surface coatings such as halide salts and refractory metal carbides and nonabrasive inorganic particulates such as potassium tetrafluoroborate, halide salts, metals, polyvinylidene chloride, etc. See column 9, lines 11-48, column 10, lines 30-41, column 12, lines 37-47.

Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Engen et al (5,551,961). Engen et al disclose a "nonloading" or "load-resistant" supersize coating comprising loading resistant materials such as metal salts of fatty acids, urea-formaldehyde resins, etc. Zinc stearate or

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calcium stearate in a cellulosic binder is particularly preferred. See column 16, lines 31-47, column 21, lines 45-49. The cellulosic binder would be expected to correspond to the thermally curable macromolecule instantly claimed as a fusible organic component. Thus Engen et al clearly anticipate the instant claim wherein the fusible powder comprises 100 parts by weight metal salt of a fatty acid and 0 parts by weight of a fusible organic component. Claim 2, according to claim 1, includes the embodiment wherein the amount of fusible organic component is zero. However, Engen et al also teach a composition comprising a metal salt of a fatty acid or mixtures thereof with a binder, such as cellulose. With respect to claims 4-6, the recitation "up to 30 parts by weight" of a fatty acid includes zero parts by weight fatty acid.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Engen et al '961. Engen et al teach that preferred supersize coating contain zinc stearate or calcium stearate. It would have been obvious to one skilled in the art at the time of the invention to employ a mixture of zinc stearate and calcium stearate as the metal salt of a fatty acid in the supersize coating compositions disclosed by Engen et al. One of ordinary skill in the art at the time of the invention would have been motivated by a reasonable expectation of success because Engen et al teach that each of zinc stearate and calcium stearate is equivalent in function and that zinc stearate and calcium stearate are the preferred metal salts of a fatty acid to be employed.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. DeVoe et al (5,766,277) disclose grinding aids and materials for preventing swarf accumulation useful in coating materials for abrasive articles (column 15, line 64, to column 16, line 16). Wei et al (5,833,724) disclose abrasive slurry formulations comprising grinding aids such as potassium tetrafluoroborate (column 4, lines 55-65). Krech (5,674,122) discloses supersize coatings for abrasive articles containing an aqueous solution of an anti-loading additive such as a stearate and a grinding aid such as cryolite (column 7, lines 5-15).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 703 308 0040. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703 308 2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9310 for regular communications and 703 872 9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.

Susan Berman

Susan W Berman
Primary Examiner
Art Unit 1711

SB
March 19, 2003